- (49) VEC. Volunteer-examiner coordinator.
- (b) The definitions of technical symbols used in this part are:
- (1) *EHF* (extremely high frequency). The frequency range 30–300 GHz.
- (2)  $\overrightarrow{HF}$  (high frequency). The frequency range 3-30 MHz.
  - (3) Hz. Hertz.
  - (4) m. Meters.
- (5) MF (medium frequency). The frequency range 300–3000 kHz.
- (6) *PEP* (peak envelope power). The average power supplied to the antenna transmission line by a transmitter during one RF cycle at the crest of the modulation envelope taken under normal operating conditions.
  - (7) RF. Radio frequency.
- (8) SHF (super-high frequency). The frequency range 3-30 GHz.
- (9) *UHF* (ultra-high frequency). The frequency range 300-3000 MHz.
- (10) VHF (very-high frequency). The frequency range 30-300 MHz.
  - (11) W. Watts.
- (c) The following terms are used in this part to indicate emission types. Refer to §2.201 of the FCC Rules, *Emission, modulation and transmission characteristics,* for information on emission type designators.
- (1) *CW*. International Morse code telegraphy emissions having designators with A, C, H, J or R as the first symbol; 1 as the second symbol; A or B as the third symbol; and emissions J2A and J2B.
- (2) Data. Telemetry, telecommand and computer communications emissions having designators with A, C, D, F, G, H, J or R as the first symbol; 1 as the second symbol; D as the third symbol; and emission J2D. Only a digital code of a type specifically authorized in this part may be transmitted.
- (3) *Image.* Facsimile and television emissions having designators with A, C, D, F, G, H, J or R as the first symbol; 1, 2 or 3 as the second symbol; C or F as the third symbol; and emissions having B as the first symbol; 7, 8 or 9 as the second symbol; W as the third symbol.
- (4) *MCW.* Tone-modulated international Morse code telegraphy emissions having designators with A, C, D, F, G, H or R as the first symbol; 2 as

- the second symbol; A or B as the third symbol.
- (5) *Phone.* Speech and other sound emissions having designators with A, C, D, F, G, H, J or R as the first symbol; 1, 2 or 3 as the second symbol; E as the third symbol. Also speech emissions having B as the first symbol; 7, 8 or 9 as the second symbol; E as the third symbol. MCW for the purpose of performing the station identification procedure, or for providing telegraphy practice interspersed with speech. Incidental tones for the purpose of selective calling or alerting or to control the level of a demodulated signal may also be considered phone.
- (6) *Pulse.* Emissions having designators with K, L, M, P, Q, V or W as the first symbol; 0, 1, 2, 3, 7, 8, 9 or X as the second symbol; A, B, C, D, E, F, N, W or X as the third symbol.
- (7) RTTY. Narrow-band direct-printing telegraphy emissions having designators with A, C, D, F, G, H, J or R as the first symbol; 1 as the second symbol; B as the third symbol; and emission J2B. Only a digital code of a type specifically authorized in this part may be transmitted.
- (8) SS. Spread spectrum emissions using bandwidth-expansion modulation emissions having designators with A, C, D, F, G, H, J or R as the first symbol; X as the second symbol; X as the third symbol.
- (9) *Test.* Emissions containing no information having the designators with N as the third symbol. Test does not include pulse emissions with no information or modulation unless pulse emissions are also authorized in the frequency band.

[54 FR 25857, June 20, 1989, as amended at 56 FR 29, Jan. 2, 1991; 56 FR 56171, Nov. 1, 1991; 59 FR 18975, Apr. 21, 1994; 60 FR 7460, Feb. 8, 1995; 62 FR 17567, Apr. 10, 1997; 63 FR 68977, Dec. 14, 1998; 64 FR 51471, Sept. 23, 1999; 66 FR 20752, Apr. 25, 2001; 69 FR 24997, May 5, 2004]

#### § 97.5 Station license required.

(a) The station apparatus must be under the physical control of a person named in an amateur station license grant on the ULS consolidated license database or a person authorized for alien reciprocal operation by §97.107 of

this part, before the station may transmit on any amateur service frequency from any place that is:

- (1) Within 50 km of the Earth's surface and at a place where the amateur service is regulated by the FCC;
- (2) Within 50 km of the Earth's surface and aboard any vessel or craft that is documented or registered in the United States; or
- (3) More than 50 km above the Earth's surface aboard any craft that is documented or registered in the United States.
- (b) The types of station license grants are:
- (1) An operator/primary station license grant. One, but only one, operator/primary station license grant may be held by any one person. The primary station license is granted together with the amateur operator license. Except for a representative of a foreign government, any person who qualifies by examination is eligible to apply for an operator/primary station license grant.
- (2) A club station license grant. A club station license grant may be held only by the person who is the license trustee designated by an officer of the club. The trustee must be a person who holds an Amateur Extra, Advanced, General, Technician Plus, or Technician operator license grant. The club must be composed of at least four persons and must have a name, a document of organization, management, and a primary purpose devoted to amateur service activities consistent with this part.
- (3) A military recreation station license grant. A military recreation station license grant may be held only by the person who is the license custodian designated by the official in charge of the United States military recreational premises where the station is situated. The person must not be a representative of a foreign government. The person need not hold an amateur operator license grant.
- (4) A RACES station license grant. A RACES station license grant may be held only by the person who is the license custodian designated by the official responsible for the governmental agency served by that civil defense organization. The custodian must be the civil defense official responsible for co-

- ordination of all civil defense activities in the area concerned. The custodian must not be a representative of a foreign government. The custodian need not hold an amateur operator license grant.
- (c) The person named in the station license grant or who is authorized for alien reciprocal operation by §97.107 of this part may use, in accordance with the applicable rules of this part, the transmitting apparatus under the physical control of the person at places where the amateur service is regulated by the FCC.
- (d) A CEPT radio-amateur license is issued to the person by the country of which the person is a citizen. The person must not:
- (1) Be a resident alien or citizen of the United States, regardless of any other citizenship also held;
- (2) Hold an FCC-issued amateur operator license nor reciprocal permit for alien amateur licensee;
- (3) Be a prior amateur service licensee whose FCC-issued license was revoked, suspended for less than the balance of the license term and the suspension is still in effect, suspended for the balance of the license term and relicensing has not taken place, or surrendered for cancellation following notice of revocation, suspension or monetary forfeiture proceedings; or
- (4) Be the subject of a cease and desist order that relates to amateur service operation and which is still in effect.
- (e) An IARP is issued to the person by the country of which the person is a citizen. The person must not:
- (1) Be a resident alien or citizen of the United States, regardless of any other citizenship also held;
- (2) Hold an FCC-issued amateur operator license nor reciprocal permit for alien amateur licensee;
- (3) Be a prior amateur service licensee whose FCC-issued license was revoked, suspended for less than the balance of the license term and the suspension is still in effect, suspended for the balance of the license term and relicensing has not taken place, or surrendered for cancellation following notice of revocation, suspension or monetary forfeiture proceedings; or

(4) Be the subject of a cease and desist order that relates to amateur service operation and which is still in effect.

[59 FR 54831, Nov. 2, 1994, as amended at 62 FR 17567, Apr. 10, 1997; 63 FR 68977, Dec. 14, 1998]

### § 97.7 Control operation required.

When transmitting, each amateur station must have a control operator. The control operator must be a person:

- (a) For whom an amateur operator/ primary station license grant appears on the ULS consolidated licensee database, or
- (b) Who is authorized for alien reciprocal operation by §97.107 of this part. [63 FR 68978. Dec. 14. 1998]

#### § 97.9 Operator license grant.

- (a) The classes of amateur operator license grants are: Novice, Technician, Technician Plus (until such licenses expire, a Technical Class license granted before February 14, 1991, is considered a Technician Plus Class license), General, Advanced, and Amateur Extra. The person named in the operator license grant is authorized to be the control operator of an amateur station with the privileges authorized to the operator class specified on the license grant.
- (b) The person named in an operator license grant of Novice, Technician, Technician Plus, General or Advanced Class, who has properly submitted to the administering VEs a FCC Form 605 document requesting examination for an operator license grant of a higher class, and who holds a CSCE indicating that the person has completed the necessary examinations within the previous 365 days, is authorized to exercise the rights and privileges of the higher operator class until final disposition of the application or until 365 days following the passing of the examination, whichever comes first.

[63 FR 68978, Dec. 14, 1998, as amended at 65 FR 6549, Feb. 10, 2000]

## §97.11 Stations aboard ships or aircraft.

(a) The installation and operation of an amateur station on a ship or aircraft must be approved by the master of the ship or pilot in command of the aircraft.

- (b) The station must be separate from and independent of all other radio apparatus installed on the ship or aircraft, except a common antenna may be shared with a voluntary ship radio installation. The station's transmissions must not cause interference to any other apparatus installed on the ship or aircraft.
- (c) The station must not constitute a hazard to the safety of life or property. For a station aboard an aircraft, the apparatus shall not be operated while the aircraft is operating under Instrument Flight Rules, as defined by the FAA, unless the station has been found to comply with all applicable FAA Rules.

# § 97.13 Restrictions on station location.

- (a) Before placing an amateur station on land of environmental importance or that is significant in American history, architecture or culture, the licensee may be required to take certain actions prescribed by §§1.1305–1.1319 of this chapter.
- (b) A station within 1600 m (1 mile) of an FCC monitoring facility must protect that facility from harmful interference. Failure to do so could result in imposition of operating restrictions upon the amateur station by a District Director pursuant to §97.121 of this part. Geographical coordinates of the facilities that require protection are listed in §0.121(c) of this chapter.
- (c) Before causing or allowing an amateur station to transmit from any place where the operation of the station could cause human exposure to RF electromagnetic field levels in excess of those allowed under §1.1310 of this chapter, the licensee is required to take certain actions.
- (1) The licensee must perform the routine RF environmental evaluation prescribed by §1.1307(b) of this chapter, if the power of the licensee's station exceeds the limits given in the following table: